

**AMENDMENTS TO THE DRAWINGS**

The attached drawing sheet includes changes to Figure 8. Reference number “625” has been added to Figure 8 as suggested by the Examiner.

Attachment: Replacement Drawing Sheet – Figure 8

### **REMARKS**

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-2, 4-7, 9, 14, 18 and 20-32 are pending, with claims 1, 4-5, 14, 18 and 27-28 amended, and claims 29-32 added by the present amendment. Claims 1, 5 and 18 are independent.

In the Official Action, claims 1-2, 4-7, 9, 14, 18 and 20-28 were rejected under 35 U.S.C. § 102(a)/102(e) as being anticipated by Tarsa (U.S. Patent No. 6,614,056); and/or claims 1-2, 4-7, 9, 14, 18 and 20-28 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Tarsa; claims 1-2, 4-7, 9, 14, 18 and 20-28 were rejected under 35 U.S.C. § 102(e) as being anticipated by Katayama (U.S. Patent No. 6,903,374); and claims 1-2, 4-7, 9, 14, 18 and 20-28 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Katayama.

Applicant acknowledges with appreciation the personal interview between the Examiner and Applicant's representative on September 3, 2009. During the interview, Applicant's Fig. 8 was compared to Fig. 1 of Tarsa regarding Applicant's claimed "plurality of transparent electrodes formed above the second nitride gallium layer, wherein at least one of the plurality of transparent electrodes is electrically connected to, and is physically isolated from, another of the plurality of transparent electrodes." After reviewing the respective figures and disclosures, the Examiner agreed that the transparent electrode of Tarsa is a single electrode and is not a plurality of physically isolated electrodes. The Examiner also agreed that Katayama does not disclose Applicant's claimed plurality of transparent electrodes. Thus, the Examiner agreed to withdraw the rejections and update his search upon receiving a formal reply to the current Official Action.

The Examiner also suggested that Applicant describe the hatched rectangle connected the transparent electrode 620 to the thin film 630 in Applicant's Fig. 8. The specification and figures are amended as suggested by the Examiner and without the introduction of new matter.

Claims 1, 4-5, 14, 18 and 27-28 are cosmetically amended to replace the term nitride gallium with the term gallium nitride. Claim 5 is further amended to delete the term 'sapphire.' Claims 29-32 are added to recite additional features described in Applicant's originally filed specification. No new matter is added.

Briefly recapitulating, amended claim 1 is directed to

An LED, comprising:

a first gallium nitride layer;

a first electrode provided at one portion of and above the first gallium nitride layer;

an active layer provided above the first gallium nitride layer;

a second gallium nitride layer provided above the active layer; and

a plurality of transparent electrodes formed above the second gallium nitride layer, wherein at least one of the plurality of transparent electrodes is electrically connected to, and is physically isolated from, another of the plurality of transparent electrodes.

Claims 5 and 18 also recite, *inter alia*, a plurality of transparent electrodes respectively formed on the second gallium nitride layer, wherein at least one of the plurality of transparent electrodes is electrically connected to, and is physically isolated from, another of the plurality of transparent electrodes.

Tarsa describes an LED having a core with epitaxially grown p- and n-type layers, and an epitaxially grown active layer between p- and n-type layers. A first current spreader layer is

included adjacent to the LED core. The LED can also include a second spreader layer on the LED core opposite the first spreader layer. It is disposed between the second contact and fingers, and the LED core. The spreader layer is more conductive than the LED core layer adjacent to it thereby allowing current to more freely flow from the contact and fingers, into the second spreader layer and throughout the LED core.

In one embodiment of Tarsa, a current spreading layer 18 (second spreader layer) is deposited on conductive layer 16 to facilitate current spreading across conductive layer 16 and into the active layer 14. The second spreader 18 may also be formed of a transparent or semitransparent conducting material. In another embodiment, second contact 91 is deposited in the center of the second spreader layer 92, with two parts of a conductive branch 93 running in opposite directions on the second spreader layer, from the contact 91 and down the LED's longitudinal centerline.

However, as acknowledged during the interview of August 12, 2009, Tarsa does not disclose or suggest a plurality of transparent electrodes respectively formed on the second gallium nitride layer, wherein at least one of the plurality of transparent electrodes is electrically connected to, and is physically isolated from, another of the plurality of transparent electrodes, as recited in amended claims 1, 5 and 18. In Tarsa, layers 18/92 form a single body and, thus do not include two transparent electrodes separated from one another (i.e., not touching each other).

Also as acknowledged during the interview of August 12, 2009, Katayama does not disclose or suggest a plurality of transparent electrodes respectively formed on the second gallium nitride layer, wherein at least one of the plurality of transparent electrodes is electrically

connected to, and is physically isolated from, another of the plurality of transparent electrodes, as recited in amended claims 1, 5 and 18.

MPEP § 2131 notes that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also MPEP § 2131.02. “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because Tarsa does not disclose or suggest all of the features recited in claims 1, 5 and 18, Tarsa does not anticipate the invention recited in claims 1, 5 and 18, and all claims depending therefrom.

As none of the cited art, individually or in combination, disclose or suggest at least the above-noted features of independent claims 1, 5 and 18, Applicant submits the inventions defined by claims 1, 5 and 18, and all claims depending therefrom, are not rendered obvious by the asserted references for at least the reasons stated above.

MPEP 2141 notes that prior art is not limited just to the references being applied, but includes the understanding of one of ordinary skill in the art. MPEP 2141 further notes that the prior art reference (or references when combined) need not teach or suggest all the claim limitations. However, an obviousness-type rejection must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. MPEP 2141 goes on to list exemplary rationales that may support a conclusion of obviousness. However, Applicant submits that the Official Action and the applied references

present no objective evidence that would support an obviousness-type rejection of Applicant's amended claims based on one of these exemplary rationales.


### **CONCLUSION**

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael E. Monaco, Reg. No. 52,041, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.147; particularly, extension of time fees.

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Respectfully submitted,

By 

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Attachments